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10/743,476	12/23/2003	Jong-Goo Lee	678-1264	9615

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EXAMINER
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THERIAULT, STEVEN B

ART UNIT	PAPER NUMBER
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2179

MAIL DATE	DELIVERY MODE
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08/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/743,476

Applicant(s)

LEE ET AL.

Examiner

Steven B. Theriault

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 109-141 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 109-141 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

1. This action is responsive to the following communications: Response to election restriction filed 06/05/2007 and Information Disclosure Statements filed 03/2004, 12/2005, 10/2006, 03/2007 and 04/2007 and claims priority to provisional application filed 09/05/2003.
2. Claims 1 –7, 109-141 are pending in the case. Claims 1 and 122 are the independent claims. Group II claims (141-179) and claims 8-108 have been cancelled.

### **Election/Restriction**

**Applicant has elected without traverse on 06/05/2007 to a restriction requirement mailed 05/02/2007, and the restriction requirement is hereby made final.**

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: #314 in figure 3 and #434 in figure 4, #520 in figure 5A. There are more errors in the drawings that are too numerous to mention and the Examiner requests that each drawing be reviewed to reflect the invention by illustration. The Examiner is referring to the updated specification mailed 01/24/2005 where the specification has been amended prior to examination on the merits. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2 and 122 and 123 are provisionally rejected on the ground of nonstatutory double patenting over claims 1 and 2 of copending Application No. 10/933,583. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

Claims 1-2 and 122- 123 of the present application are virtually identical to claims 1 and 2 of the 583' application

#### **Claims in the present application**

1. (Previously Presented) A proactive user interface for a computational device, the computational device having an operating system, comprising:

(a) an interface unit for communicating between a user and said operating system; and  
(b) a learning module for detecting at least one pattern of interaction of the user with said interface unit and for proactively altering at least one function of said interface unit according to said detected pattern.

2. (Previously Presented) The proactive user interface of claim 1, wherein said at least one pattern is selected from the group consisting of a pattern determined according to at least one previous interaction of the user with said interface unit, and a predetermined pattern, or a combination thereof.

122. (Previously Presented) A method for a proactive interaction between a user and a computational device through a user interface, the computational device having an operating system, the method comprising:

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detecting a pattern of user behavior according to at least one interaction of the user with the user interface by using a learning module; and proactively altering at least one function of the user interface according to said pattern.

123. (Previously Presented) The method of claim 122, wherein said at least one pattern is selected from the group consisting of a pattern determined according to at least one previous interaction of the user with said user interface, and a predetermined pattern, or a combination thereof.

**Claims in the 583' application**

1. A proactive user interface for a computational device having an operating system, the proactive user interface comprising: (a) an interface unit for communication between a user of the proactive user interface and said operating system, said interface unit including an evolving agent enabling communication with the user; and (b) a learning module for detecting at least one pattern of interaction of the user with said interface unit, and actively suggesting, to the user, options for evolving at least one function of the user interface according to said at least one pattern.

2. The proactive user interface of claim 1, wherein said at least one pattern is selected from the group consisting of a pattern determined according to at least one previous interaction of the user with said interface unit, a predetermined pattern, and a combination thereof.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

***Claim Rejections - 35 USC § 102***

4. **The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-7, 109-141 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoffberg et al. (hereinafter Hoffberg) U.S. Patent No. 6400996 issued June 4, 2002.**

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In regard to claims 1-7 and 109-121, claims 1-7 and 109-121 reflect the interface comprising computer readable instructions for performing the method steps of claims 122-141, respectively, and are rejected along the same rationale.

In regard to **Independent claim 122**, Hoffberg teaches a method for a proactive interaction between a user and a computational device through a user interface, the computational device having an operating system, the method comprising:

- Detecting a pattern of user behavior according to at least one interaction of the user with the user interface by using a learning module (See column 10, lines 15-31 and several incorporate pattern recognition patents (See column 42, lines 20-67 and column 50, lines 50-67).
- Proactively altering at least one function of the user interface according to said pattern (See Figure 15, and column 85, lines 5-67). Hoffberg teaches an interface that the user interacts with and that the system modifies based on the detected input pattern

With respect to **dependent claim 123**, Hoffberg teaches the method wherein said at least one pattern is selected from the group consisting of a pattern determined according to at least one previous interaction of the user with said user interface, and a predetermined pattern, or a combination thereof (See column 51, lines 7-15).

With respect to **dependent claim 124**, Hoffberg teaches the method wherein said user interface features a graphical display and said altering at least one function of said user interface comprises altering at least a portion of said graphical display (See Figure 15 and column 51, lines 55-67 and column 52, lines 35-45).

With respect to **dependent claim 125**, Hoffberg teaches the method wherein said altering at least a portion of said graphical display comprises:  
selecting a menu for display according to said detected pattern; and displaying said menu (See

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column 144, lines 25-42 and Figure 15 and column 90, lines 20-40).

With respect to **dependent claim 126**, Hoffberg teaches the method wherein said selecting said menu comprises: constructing a menu from a plurality of menu options (See column 116, lines 15-67 and Figures 15-18).

With respect to **dependent claim 127**, Hoffberg teaches the method wherein said user interface features an audio display and said altering at least one function of said user interface comprises altering at least one audible sound produced by the computational device (See column 60, lines 59-67, column 94, lines 43-65 and column 119, lines 20-67).

With respect to **dependent claim 128**, Hoffberg teaches the method wherein the computational device is selected from the group consisting of a regular computer, an ATM, a cellular telephone, a mobile information device, a PDA, or a consumer appliance having an operating system (See column 51, lines 40-45, column 39, lines 35-45 and column 147, lines 30-35).

With respect to **dependent claim 129**, Hoffberg teaches the method wherein said learning module comprises a knowledge base, and the method further comprises holding information gathered as a result of interactions with the user and/or the operating system by using said knowledge base (See Figure 18, 1807 and column 117, lines 20-67).

With respect to **dependent claim 130**, Hoffberg teaches the method wherein said knowledge base comprises a plurality of integrated knowledge determined from the behavior of the user and from preprogrammed information (See column 56, lines 40-51).

With respect to **dependent claim 131**, Hoffberg teaches the method wherein said learning module further comprises a plurality of sensors, and uses said sensors to perceive a state of the operating system (See column 99, lines 1-15 and 40-55).

With respect to **dependent claim 132**, Hoffberg teaches the method wherein said learning module further comprises a perception unit, and uses said perception unit to process output from said sensors and determine a state of the operating system and a state of said user interface (See figures 15-18 and column 50, lines 50-67 and column 125, lines 30-67).

With respect to **dependent claim 133**, Hoffberg teaches the method wherein said learning module further comprises a reasoning system, and uses said reasoning system to update said knowledge base and learn an association between an alteration of said user interface and a state of the operating system (See column 126, lines 44-67 and Example 12, column 119).

With respect to **dependent claim 134**, Hoffberg teaches the method wherein said learning module further comprises at least one of an artificial intelligence algorithm and a machine learning algorithm, and the method is performed by the learning module (See column 42, lines 27-67 and column 132, lines 10-20).

With respect to **dependent claim 135**, Hoffberg teaches the method wherein said learning module maximizes a percentage of proactive alterations leading to a direct user selection from said alteration (See column 51, lines 63-67 and 52, lines 1-26).

With respect to **dependent claim 136**, Hoffberg teaches the method wherein said maximization is performed through learning reinforcement (See column 51, lines 63-67 and 52, lines 1-26 and column 55, lines 58-67 and column 56, lines 1-22).

With respect to **dependent claim 137**, Hoffberg teaches the method wherein said learning reinforcement is performed through an iterative learning process (See column 51, lines 63-67 and 52, lines 1-26 and column 55, lines 58-67 and column 56, lines 1-22).

With respect to **dependent claim 138**, Hoffberg teaches the method wherein each iteration of said learning process is performed after said alteration has been performed (See column 53, lines 19-40 and Examples 12-14).

With respect to **dependent claim 139**, Hoffberg teaches the method wherein said proactively altering at least one function of said user interface comprises activating an additional software application through the operating system (See column 131, medial devices that interact with the system have additional software installed to measure the bio feeds of the user.)

With respect to **dependent claim 140**, Hoffberg teaches the method wherein the method is performed using an intelligent agent capable of communicating with a human user (See example



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12-14, column 119-120.

With respect to **dependent claim 141**, Hoffberg teaches the method wherein said intelligent agent controls at least one interaction of the computational device over a network (See Examples 12-14 and Example 17, column 125-126).

**It is noted that any citation to specific pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).**

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Theriault whose telephone number is (571) 272-5867. The examiner can normally be reached on M, W, F 10:00AM - 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**WEILUN LO**  
**SUPERVISORY PATENT EXAMINER**